

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A PVC switching control method for controlling a PVC connection in [[an ATM]] a communication network, comprising:
setting a plurality of PVC connections and individually corresponding controlling connections between two [[ATM]] exchanges of the [[ATM]] communication network;
detecting, by each of the [[ATM]] exchanges, occurrence of or release from [[a]] trouble with a PVC connection through the corresponding controlling connection; and
switching an operative PVC connection to another one of the PVC connections in response to a result of the detection.

2. (currently amended) The PVC switching control method as claimed in claim 1, wherein, if, while one of the PVC connections is used as a currently used PVC connection, it is detected from the corresponding controlling connection that [[a]] trouble has occurred with the currently used PVC connection, then each of the [[ATM]] exchanges switches the operative PVC connection to another one of the PVC connections as a bypassing PVC connection.

3. (currently amended) The PVC switching control method as claimed in claim 2, wherein, if, while the bypassing PVC connection is used, it is detected that the currently used PVC connection has been released through the corresponding controlling connection, then each of the [[ATM]] exchanges switches the operative PVC connection to the currently used PVC

connection.

4. (previously presented) The PVC switching control method as claimed in claim 1, wherein the controlling connections are set by an operation administration and maintenance function.

5. (currently amended) The PVC switching control method as claimed in claim 4, wherein each of the [[ATM]] exchanges detects [[a]] trouble through receipt of an alarm indication signal cell from the operation administration and maintenance function over one of the controlling connections.

6. (currently amended) The PVC switching control method as claimed in claim 4, wherein each of the [[ATM]] exchanges detects [[a]] trouble through failure to receive a continuity check cell from the operation administration and maintenance function over one of the controlling connections.

7. (currently amended) A PVC switching control method for controlling a PVC connection in [[an ATM]] a communication network, comprising:

setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between a first [[ATM]] exchange and a second [[ATM]] exchange;

setting a bypassing PVC connection prepared in advance for bypassing of the master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second [[ATM]] exchanges; and

switching, if both of the first and second [[ATM]] exchanges detect [[a]] trouble of the master PVC connection through the master side OAM connection, the master PVC connection to the bypassing PVC connection at the first and second [[ATM]] exchanges.

8. (currently amended) The PVC switching control method as claimed in claim 7, wherein, if, while the first and second [[ATM]] exchanges use the bypassing PVC connection, the first and second [[ATM]] exchanges detect a release of the master PVC connection through the master side OAM connection, each of the first and second [[ATM]] exchanges switches the PVC connection to the master PVC connection.

9. (currently amended) The PVC switching control method as claimed in claim 7, wherein a plurality of repeating [[ATM]] exchanges are connected on a route of the bypassing PVC connection and a connection for forming the bypassing PVC connection is set in each of the repeating [[ATM]] exchanges.

10. (currently amended) The PVC switching control method as claimed in claim 9, wherein each of the first and second [[ATM]] exchanges designates a connection set in advance and signals [[an ATM]] a cell to a neighboring one of the plurality of repeating [[ATM]] exchanges through the designated connection.

11. (currently amended) A PVC switching control system for controlling a PVC connection in [[an ATM]] a communication network, comprising:

means for setting a plurality of PVC connections and corresponding controlling connections between first and second [[ATM]] exchanges of the [[ATM]] communication network;

means for detecting, by each of the first and second [[ATM]] exchanges, occurrence of or release from [[a]] trouble with a PVC connection based on information from the corresponding controlling connection; and

means for switching an operative PVC connection to another one of the PVC connections in response to a result of the detection.

12. (previously presented) The PVC switching control system of claim 11, wherein the controlling connections include operation administration and maintenance (OAM) connections to provide one of an alarm signal or a continuity check signal.

13. (currently amended) The PVC switching control system of claim 11, wherein, if, while one of the PVC connections is used as a currently used PVC connection, it is detected from the corresponding controlling connection that [[a]] trouble has occurred with the currently used PVC connection, then each of the first and second [[ATM]] exchanges switches the operative PVC connection to another one of the PVC connections as a bypassing PVC connection.

14. (currently amended) The PVC switching control system of claim 13, wherein, if, while the bypassing PVC connection is used, it is detected that the currently used PVC connection has been released through the corresponding controlling connection, then each of the first and second [[ATM]] exchanges switches the operative PVC connection to the currently used PVC connection.

15. (previously presented) The PVC switching control system of claim 11, wherein the controlling connections are set by an operation administration and maintenance (OAM) function.

16. (currently amended) The PVC switching control system of claim 15, wherein each of the first and second [[ATM]] exchanges detects trouble via receipt of an alarm indication signal cell from the OAM function over one of the controlling connections.

17. (currently amended) The PVC switching control system of claim 15, wherein each of the first and second [[ATM]] exchanges detects trouble via failure to receive a continuity check cell from the OAM function over one of the controlling connections.

18. (currently amended) A first [[ATM]] exchange in [[an ATM]] a network, comprising:

means for setting a master PVC connection and a master side operation administration and maintenance (OAM) connection corresponding to the master PVC connection between the first [[ATM]] exchange and a second [[ATM]] exchange;

means for setting a bypassing PVC connection prepared in advance for bypassing of the master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between the first and second [[ATM]] exchanges;

means for detecting [[a]] trouble of the master PVC connection through the master side OAM connection; and

means for switching the master PVC connection to the bypassing PVC connection if [[a]] trouble of the master PVC connection is detected.